



## DEPARTMENT OF TRANSPORTATION

### Federal Motor Carrier Safety Administration

#### 49 CFR Parts 350, 365, 385, 386, 387, and 395

[Docket No. FMCSA-2022-0003]

RIN 2126-AC52

### Safety Fitness Determinations

**AGENCY:** Federal Motor Carrier Safety Administration (FMCSA), Department of Transportation (DOT).

**ACTION:** Advance notice of proposed rulemaking and request for comments.

**SUMMARY:** FMCSA is interested in developing a new methodology to determine when a motor carrier is not fit to operate commercial motor vehicles (CMVs) in or affecting interstate commerce. FMCSA requests public comment on the need for a rulemaking to revise the regulations prescribing the safety fitness determination process; the available science or technical information to analyze regulatory alternatives for determining the safety fitness of motor carriers; feedback on the Agency's current safety fitness determination (SFD) regulations, including the process and impacts; the available data and costs for regulatory alternatives reasonably likely to be considered as part of this rulemaking; and responses to specific questions in this advance notice of proposed rulemaking (ANPRM).

**DATES:** Comments on this notice must be received on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

**ADDRESSES:** You may submit comments identified by Docket Number FMCSA-2022-0003 using any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov/docket/FMCSA-2022-0003/document>. Follow the online instructions for submitting comments.

- Mail: Dockets Operations, U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building, Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery or Courier: Dockets Operations, U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building, Ground Floor, Room W12-140, Washington, DC 20590-0001, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. To be sure someone is there to help you, please call (202) 366-9317 or (202) 366-9826 before visiting Dockets Operations.
- Fax: (202) 493-2251.

To avoid duplication, please use only one of these four methods. See the “Public Participation and Request for Comments” portion of the SUPPLEMENTARY INFORMATION section for instructions on submitting comments.

**FOR FURTHER INFORMATION CONTACT:** Ms. Stacy Ropp, (609) 661-2062, [SafetyFitnessDetermination@dot.gov](mailto:SafetyFitnessDetermination@dot.gov). FMCSA office hours are from 7:30 a.m. to 4 p.m., Monday through Friday, except Federal holidays. If you have questions on viewing or submitting material to the docket, call Dockets Operations at (202) 366-9826.

## **SUPPLEMENTARY INFORMATION:**

### **I. Public Participation and Request for Comments**

#### **A. Submitting Comments**

If you submit a comment, please include the docket number for this ANPRM (FMCSA-2022-0003), indicate the specific section of this document to which your comment applies, and provide a reason for each suggestion or recommendation. You may submit your comments and material online or by fax, mail, or hand delivery, but please use only one of these means. FMCSA recommends that you include your name and a mailing address, an email address, or a phone number in the body of your document so FMCSA can contact you if there are questions regarding your submission.

To submit your comment online, go to <https://www.regulations.gov/docket/FMCSA-2022-0003/document>, click on this ANPRM, click “Comment,” and type your comment into the text box on the following screen.

If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit comments by mail and would like to know that they reached the facility, please enclose a stamped, self-addressed postcard or envelope.

FMCSA will consider all comments and material received during the comment period.

#### **Confidential Business Information (CBI)**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to the ANPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to the ANPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each

page of your submission that constitutes CBI as “PROPIN” to indicate it contains proprietary information. FMCSA will treat such marked submissions as confidential under the Freedom of Information Act, and they will not be placed in the public docket of the ANPRM. Submissions containing CBI should be sent to Mr. Brian Dahlin, Chief, Regulatory Evaluation Division, Office of Policy, FMCSA, 1200 New Jersey Avenue SE, Washington DC 20590-0001. Any comments FMCSA receives not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **B. Viewing Comments and Documents**

To view any documents mentioned as being available in the docket, go to [https://www.regulations.gov/docket/ FMCSA-2022-0003](https://www.regulations.gov/docket/FMCSA-2022-0003) document and choose the document to review. To view comments, click this ANPRM, then click “Browse Comments.” If you do not have access to the internet, you may view the docket online by visiting Dockets Operations in Room W12-140 on the ground floor of the DOT West Building, 1200 New Jersey Avenue SE, Washington, DC 20590-0001, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. To be sure someone is there to help you, please call (202) 366-9317 or (202) 366-9826 before visiting Dockets Operations.

## **C. Privacy**

DOT solicits comments from the public to better inform its regulatory process, in accordance with 5 U.S.C. 553(c). DOT posts these comments, without edit, including any personal information the commenter provides, to [www.regulations.gov](http://www.regulations.gov), as described in the system of records notice (DOT/ALL 14 – Federal Docket Management System (FDMS)), which can be reviewed at [www.transportation.gov/privacy](http://www.transportation.gov/privacy).

## **II. Legal Basis for the Rulemaking**

This rulemaking is based primarily on 49 U.S.C. 31144(a) and (b)<sup>1</sup> which direct the Secretary of Transportation (Secretary) to determine whether an owner or operator is fit to operate safely CMVs and to maintain by regulation a procedure for determining the safety fitness of an owner or operator. FMCSA's authority to determine the safety fitness of owners or operators of CMVs was broadened with major amendments in 1998<sup>2</sup> and 2005,<sup>3</sup> and another amendment in 2012.<sup>4</sup>

As amended, section 31144(a) now requires the Secretary to: (1) determine whether an owner or operator is fit to operate CMVs safely, utilizing among other things the crash record of an owner or operator operating in interstate commerce and the crash record and safety inspection record of such owner or operator—(A) in operations that affect interstate commerce within the United States; and (B) in operations in Canada and Mexico if the owner or operator also conducts operations within the United States; (2) periodically update such SFDs; (3) make such final SFDs readily available to the public; and (4) prescribe by regulation penalties for violations of 49 U.S.C. 31144 consistent with 49 U.S.C. 521.<sup>5</sup>

Section 31144(b) provides that the Secretary shall maintain by regulation a procedure for determining the safety fitness of an owner or operator. The procedure shall include, at a minimum, the following elements: (1) specific initial and continuing requirements with which an owner or operator must comply to demonstrate safety fitness; (2) a methodology the Secretary will use to determine whether an owner or operator is fit; and (3) specific time frames within which the

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<sup>1</sup> Enacted by Motor Carrier Safety Act of 1984 (1984 Act), sec. 215, Pub. L. 98–554, Title II, 98 Stat. 2829, 2844–2845 (Oct. 30, 1984), now codified at 49 U.S.C. 31144.

<sup>2</sup> Sec. 4009(a) of the Transportation Equity Act for the 21st Century (TEA-21), Pub. L. 105–178, 112 Stat. 107, 405 (June 12, 1998).

<sup>3</sup> Sec. 4114(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Pub. L. 109–59, 119 Stat. 1144, 1725 (Aug. 10, 2005).

<sup>4</sup> Sec. 32707(a), Div. C., Title II of the Moving Ahead for Progress in the 21st Century Act (MAP-21), Pub. L. 112–141, 126 Stat. 813 (July 6, 2012).

<sup>5</sup> 49 U.S.C. 31144(a).

Secretary will determine whether an owner or operator is fit.<sup>6</sup>

This rulemaking also relies on 49 U.S.C. 31133, which gives the Secretary broad administrative powers to assist in the implementation of the provisions of subchapter III of chapter 311 of 49 U.S.C. These powers include, among others, authority to conduct inspections and investigations, compile statistics, require production of records and property, prescribe recordkeeping and reporting requirements, and perform other acts considered appropriate.<sup>7</sup> The Agency also has broad authority to conduct investigations and inspect equipment, lands, buildings, and other property.<sup>8</sup> These powers are exercised to obtain the data used to issue SFDs.

FMCSA has authority to revoke the operating authority registration of any motor carrier that has been prohibited from operating as the result of a final unfit SFD.<sup>9</sup> FMCSA has the authority to take similar action to revoke or suspend a motor carrier's safety registration on the same grounds.<sup>10</sup> FMCSA also has statutory authority to adopt a requirement that States receiving Motor Carrier Safety Assistance Program (MCSAP) grants enforce orders issued by FMCSA related to CMV safety and hazardous materials (HM) transportation safety. States receiving MCSAP funds therefore must enforce FMCSA orders to cease operation for lack of operating authority registration as the result of a final unfit SFD.<sup>11</sup>

The Secretary has delegated the authority to carry out all these functions to the FMCSA Administrator.<sup>12</sup>

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<sup>6</sup> 49 U.S.C. 31144(b).

<sup>7</sup> See Sen. Report No. 98-424 at 9 (May 2, 1984).

<sup>8</sup> 49 U.S.C. 502, 504(c), 506, 5121 (as to persons subject to 49 U.S.C. Chapter 51), 14122 (as to brokers and motor carriers providing motor vehicle transportation for compensation)

<sup>9</sup> 49 U.S.C. 13905(f)(1)(B).

<sup>10</sup> 49 U.S.C. 31134(c).

<sup>11</sup> 49 U.S.C. 31102(a) and (b).

<sup>12</sup> 49 CFR 1.87(a)(5), (f), and (j).

### **III. Executive Order (E.O.) 12866 (Regulatory Planning and Review), E.O. 13563 (Improving Regulation and Regulatory Review), AND E.O. 14094 (Modernizing Regulatory Review)**

This ANPRM is a significant regulatory action under section 3(f) of E.O. 12866, as supplemented by E.O. 13563 and amended by E.O. 14094. Accordingly, the Office of Information and Regulatory Affairs within the Office of Management and Budget has reviewed it under these E.O.s.

E.O.s 12866, 13563, and 14094 require agencies to provide a meaningful opportunity for public participation. Accordingly, FMCSA has asked commenters to answer a variety of questions to elicit practical information about alternative approaches for safety fitness determinations, including the associated costs and benefits of those approaches, and relevant scientific, technical, and economic data.

### **IV. Background**

#### **History of SFDs**

The Federal Highway Administration (FHWA), the predecessor of FMCSA, first promulgated Safety Fitness Procedures in 1988<sup>13</sup> to determine the safety fitness of motor carriers through an investigation generally conducted at the motor carrier's premises and to establish procedures to resolve safety fitness disputes with motor carriers, as required by the 1984 Act.<sup>14</sup> In 1991, FHWA issued an interim final rule,<sup>15</sup> based on provisions in the Motor Carrier Safety Act of 1990 (1990 Act).<sup>16</sup> This interim final rule prohibited certain motor carriers rated Unsatisfactory (i.e., Unfit) from operating CMVs in interstate commerce by transporting more than 15 passengers or placardable quantities of HM starting on the 46th day after being found unfit. This regulation went into effect on the date of publication in August 1991. FHWA stated that it would use a safety-rating

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<sup>13</sup> 53 FR 50961 (Dec. 19, 1988).

<sup>14</sup> Sec. 215, Pub. L. 98-554, 98 Stat. 2829, 2844-2845, now codified, as amended, at 49 U.S.C. 31144.

<sup>15</sup> 56 FR 40802 (Aug. 16, 1991).

<sup>16</sup> Sec. 15(b), Pub. L. 101-500, 104 Stat. 1213, 1218 (Nov. 3, 1990).

formula to determine safety ratings, but the formula, while publicly available, was not included in the safety fitness regulation.

In March 1997, in *MST Express v. Department of Transportation*,<sup>17</sup> the U.S. Court of Appeals for the District of Columbia Circuit ruled in favor of a motor carrier that had appealed its conditional safety fitness rating. The court found that FHWA did not carry out its statutory obligation to establish, by regulation, a means of determining whether a carrier has complied with the safety fitness requirements of the 1984 Act. Because the carrier's conditional safety rating was based, in part, upon the formula that was publicly available, but was not included in the promulgated 1988 final rule or 1991 interim final rule, the court vacated the petitioner's conditional safety rating and remanded the matter to FHWA for further action.

In response, FHWA issued a second interim final rule in May 1997<sup>18</sup> incorporating the safety fitness rating methodology into the safety fitness regulations, and a companion notice of proposed rulemaking (NPRM) published the same day<sup>19</sup> proposed to adopt the formula or methodology for use in assigning safety fitness ratings to all classes of motor carriers. This companion NPRM discussed the public comments received in response to the 1991 interim final rule.

In November 1997, FHWA published a final rule<sup>20</sup> incorporating the Agency's revised safety fitness rating methodology in appendix B to 49 CFR part 385, Safety Fitness Procedures. In November 1998, FHWA published amendments to the rule that corrected several minor errors.<sup>21</sup> These changes withstood judicial review in 1999 in *American Trucking Associations, Inc. v. U.S. DOT*.<sup>22</sup> The court in the American Trucking

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<sup>17</sup> 108 F.3d 401 (D.C. Cir. 1997)

<sup>18</sup> 62 FR 28807 (May 28, 1997).

<sup>19</sup> 62 FR 28826 (May 28, 1997).

<sup>20</sup> 62 FR 60035 (Nov. 6, 1997).

<sup>21</sup> 63 FR 62957 (Nov. 10, 1998).

<sup>22</sup> 166 F.3d 374 (D.C. Cir. 1999)



Associations case gave deference to FHWA’s interpretation of its statutory directive as it related to the level of specificity required in regulation and related interpretive guidance. Regarding FHWA’s reason for using interpretive guidance rather than notice and comment rulemaking to implement aspects of the methodology, the court noted: “It is easy to imagine an affirmative reason for the agency’s decision not to subject the sampling procedure to notice and comment rulemaking—the desire to be able to vary these technical elements of the process without excessive delay as experience accrues.”

In 1998, TEA-21 added a prohibition<sup>23</sup> applicable to all owners and operators of CMVs not previously subject to the 1990 Act’s prohibition—that is, those CMV owners and operators not transporting more than 15 passengers or HM in quantities requiring placarding. Following that change, starting on the 61st day after being found unfit, all owners and operators, including those not transporting more than 15 passengers or HM in quantities requiring placarding, were prohibited from operating CMVs in interstate commerce. It also prohibited Federal agencies from using any unfit owner or operator to provide any transportation service. FHWA proposed the regulations implementing the TEA-21 amendments in 1999, and FMCSA, which was established in 2000, published the final rule on August 22, 2000.<sup>24</sup>

FMCSA published several additional amendments earlier in 2000.<sup>25</sup> These changes updated the list of acute and critical regulations to conform with changes in FMCSA and the Pipeline and Hazardous Materials Safety Administration regulations. In 2007,<sup>26</sup> the Agency further revised the safety fitness procedures regulations and appendix B to implement SAFETEA-LU statutory amendments.<sup>27</sup>

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<sup>23</sup> Sec. 4009(a), Pub. L. 105–178, 112 Stat. 107, 405, codified in amended 49 U.S.C. 31144.

<sup>24</sup> 65 FR 50919 (Aug. 22, 2000).

<sup>25</sup> 65 FR 11904 (Mar. 7, 2000).

<sup>26</sup> 72 FR 36760 (July 5, 2007).

<sup>27</sup> Sec. 4114(a), Pub. L. 109–59, 119 Stat. 1144, 1725, codified in amended 49 U.S.C. 31144.

In 2007, in response to a motorcoach fire with numerous fatalities, the National Transportation Safety Board (NTSB) recommended that FMCSA use all motor carrier violations when assessing a carrier's safety fitness. (See NTSB recommendation H-07-003 in "Highway Accident Report: Motorcoach Fire on Interstate 45 During Hurricane Rita Evacuation Near Wilmer, Texas, September 23, 2005."). A copy of the NTSB report and a related Motor Carrier Safety Advisory Committee (MCSAC) report have been placed in the docket. The MCSAC recommended unanimously to FMCSA that it implement the NTSB proposal to use all motor carrier violations when assessing a carrier's safety fitness. NTSB closed the recommendation on September 15, 2015, after NTSB accepted FMCSA's alternative action of including severity weights for violations of the regulations and including them in its Safety Measurement System (SMS). A copy of NTSB's letter closing the recommendation is also in the docket.

### **Current SFD Process**

SFDs are currently determined based on an analysis of existing motor carrier data and data collected during an investigation (referred to as a "compliance review" (CR) in § 385.3). The CR may be conducted on-site at the motor carrier's place of business and/or remotely through a review of its records using a secure portal. The existing SFD process analyzes six factors to assign a carrier's safety fitness rating. Federal Motor Carrier Safety Regulations (FMCSRs) and Hazardous Materials Regulations (HMRs) with similar characteristics are grouped together in the six factors as follows:

- Factor 1 General—Parts 387 and 390
- Factor 2 Driver—Parts 382, 383, and 391
- Factor 3 Operational—Parts 392 and 395
- Factor 4 Vehicle—Parts 393 and 396
- Factor 5 HM—Parts 171, 177, 180, and 397

- Factor 6 Accident factor—Recordable accident rate per million miles

FMCSA calculates a vehicle out-of-service rate, reviews crash involvement, and conducts an in-depth examination of the motor carrier's compliance with the acute and critical regulations of the FMCSRs and HMRs, currently listed in 49 CFR part 385, appendix B, part VII.

“Acute regulations” are those where noncompliance is so severe as to require immediate corrective action, regardless of the overall safety management controls of the motor carrier.

“Critical regulations” are related to management or operational systems controls. Overall noncompliance is calculated and rated on a point system within the six factors. During the investigation, for each instance of noncompliance with an acute regulation or each pattern of noncompliance with a critical regulation one point is assessed. Each pattern of noncompliance with a critical regulation in part 395, Hours of Service of Drivers, is assessed two points. For a critical regulation, the number of violations required to meet the threshold for a pattern is equal to at least 10 percent of those sampled, and more than one violation must be found to establish a pattern. In addition, on-road safety data is used in calculating the vehicle and crash factors.<sup>28</sup>

If any factor is assessed one point, that factor is rated as “conditional.” If any factor is assessed two points, that factor is rated as “unsatisfactory.” Two or more individual factors rated as “unsatisfactory” will result in an overall rating of “Unsatisfactory.” One individual factor rated as “unsatisfactory” and more than two individual factors rated as “conditional” will also result in an “Unsatisfactory” rating overall (see Table 1 below).

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<sup>28</sup> This is referred to as the *Accident Factor* in 49 CFR part 385 appendix B. Under § 390.5, *Accident* and *Crash* have the same meaning.

Table 1—Current SFD Rating Table

Factor Ratings		Overall Safety Rating
Unsatisfactory	Conditional	
0	2 or fewer	Satisfactory
0	More than 2	Conditional
1	2 or fewer	Conditional
1	More than 2	Unsatisfactory
2 or more	0 or more	Unsatisfactory

The Agency's current SFD process is resource-intensive and reaches only a small percentage of motor carriers. In fiscal year (FY) 2019,<sup>29</sup> FMCSA and its State partners conducted 11,671 CRs out of a population of more than 567,000 active interstate motor carriers.<sup>30</sup> The Agency conducts CRs that are either comprehensive, reviewing all regulatory factors in full, or focused, reviewing fewer than all of the factors. A comprehensive CR may result in a satisfactory, conditional, or unsatisfactory safety rating. A focused CR may result in a conditional or unsatisfactory safety rating or may not result in a safety rating.

Of the CRs conducted in FY 2019, 306 resulted in a final safety rating of Unsatisfactory, 1,842 resulted in a final safety rating of Conditional, and 2,701 resulted in a final safety rating of Satisfactory.<sup>31</sup> Only a small percentage of carriers with safety management control deficiencies are required to submit corrective action to continue operating and avoid a final unfit determination based on an unsatisfactory rating.

<sup>29</sup> FY 2019 was the last year prior to the COVID-19 pandemic. In FY 2020 and FY 2021, the pandemic limited the number of CRs conducted due to restrictions on travel and safety concerns.

<sup>30</sup> This does not include intrastate HM motor carriers.

<https://ai.fmcsa.dot.gov/registrationstatistics/CustomReports>, last accessed April 26, 2022.

<sup>31</sup> <https://ai.fmcsa.dot.gov/SafetyProgram/spRptReview.aspx?rpt=RVFR>, last accessed April 26, 2022.

FMCSA's SMS currently is not used in any way to generate SFDs. SMS is FMCSA's prioritization system to identify motor carriers for investigation that demonstrate through safety data that they pose safety risk. SMS organizes inspection and crash data into seven categories of violations known as Behavior Analysis and Safety Improvement Categories (BASICS). SMS generates absolute measures of a carrier's safety performance and then creates percentile rankings within each BASIC that compare carriers' safety performance to similarly sized carriers. Carriers whose relative percentiles exceed established intervention thresholds are considered to be in "alert" status and may receive an FMCSA intervention, such as a warning letter or investigation.

## **2016 NPRM**

On January 21, 2016, FMCSA published an NPRM titled "Carrier Safety Fitness Determination" (81 FR 3562, available at <https://www.regulations.gov/document/FMCSA-2015-0001-0076>). That NPRM proposed SFDs based on the carrier's on-road safety data; an investigation; or a combination of on-road safety data and investigation information.

The 2016 NPRM proposed SFD methodology would have used a carrier's absolute measure, but not its relative percentile ranking, in SMS to generate unfit SFDs. The intended effect of that proposal was to more effectively use FMCSA data and resources to identify unfit motor carriers and to remove them from the Nation's roads. The previous NPRM also proposed eliminating the current rating terms of Satisfactory, Unsatisfactory, and Conditional and transitioning to a single determination of Unfit.

The Agency concluded that many reasons supported changing the SFD. First, the current SFD methodology evaluates a motor carrier's compliance using only a limited range of roadside and other inspection data. Additionally, the current process does not integrate all the data available in the Motor Carrier Management Information System (MCMIS). Approximately 3.5 million inspections are conducted each year, and this

information is not effectively used to remove unsafe operators from our Nation's roadways.

Second, the safety rating is a snapshot of a company's safety performance at the time of the investigation. Because the Agency has resources to issue safety ratings to only a small percentage of motor carriers each year, a safety rating does not necessarily reflect the current safety posture of a motor carrier.

Third, the current SFD process is not designed to continually monitor motor carrier on-road safety data.

Fourth, the assignment and perpetual existence of a Satisfactory safety rating (until the rating is replaced after a subsequent CR), may be misconstrued as an FMCSA approval of the current operations of a motor carrier, when instead, it reflects FMCSA's evaluation of a motor carrier's operations at the time of the investigation.

Fifth, under the current SFD process, a motor carrier is not prohibited from operating with a Conditional rating even though a ratable review reveals breakdowns in safety management controls in multiple areas. For example, a motor carrier with documented noncompliance in areas such as vehicle maintenance (factor 4) and controlled substances and alcohol testing (factor 2) would receive only a proposed Conditional rating, which, if it became final, would still allow the motor carrier to continue operating.

Sixth, under present and foreseeable staffing levels, the current regulations allow the Agency and its State partners to assess or rate the safety fitness of only a small population of motor carriers on an annual basis. The 2016 proposal would have expanded the number of assessed and rated carriers.

Lastly, FMCSA has agreed to take action on an NTSB recommendation related to changing the safety fitness methodology, H-12-017: Include SMS rating scores in the

methodology used to determine a carrier’s fitness to operate in the safety fitness rating rulemaking for the new Compliance, Safety, Accountability initiative.

The Agency received 153 initial comment period submissions and 17 reply comment period submissions in response to the 2016 NPRM. While many commenters favored the proposal, including most safety advocacy and State law enforcement groups, others opposed it, including large and small motor carriers and some trade associations. More information about this rulemaking action can be found in the docket for the 2016 NPRM.

### **FAST Act Impacts**

Section 5221 of the Fixing America’s Surface Transportation (FAST) Act<sup>32</sup> required the National Academy of Sciences (NAS) to conduct an independent study of SMS. In 2017 FMCSA withdrew the 2016 NPRM to await the completion of the correlation study by NAS, and an analysis of any corrective actions.<sup>33</sup>

On June 27, 2017, NAS published the report titled, “Improving Motor Carrier Safety Measurement.” The report is available in the docket for this ANPRM and also available at <https://www.nap.edu/catalog/24818/improving-motor-carrier-safety-measurement>.

The NAS report concluded that SMS, in its current form, is structured in a reasonable way and its method of identifying motor carriers for alert status is defensible. The NAS agreed that FMCSA’s overall approach, based on crash prevention rather than prediction, is sound. The NAS provided six recommendations. The primary recommendation was for FMCSA to develop a complex statistical model known as item response theory (IRT) and “[i]f it is then demonstrated to perform well in identifying motor carriers for alerts, FMCSA should use it to replace SMS in a manner akin to the

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<sup>32</sup> Pub. L. 114–94, div. A, title V, subtitle B, part II, 129 Stat. 1538 (Dec. 4, 2015), 49 U.S.C. 31100 note.

<sup>33</sup> (82 FR 14848), March 23, 2017.

way SMS replaced SafeStat.” FMCSA accepted all the NAS recommendations and developed an implementation plan, as required by the FAST Act. A copy of the action plan is available in the docket of this ANPRM.

In addition, section 5223 of the FAST Act (49 U.S.C. 31100 note) prohibits FMCSA from using information regarding the SMS percentiles and alerts for SFDs until the DOT’s Office of the Inspector General makes five certifications required by the FAST Act. The OIG has not issued the five certifications, and this statutory limitation therefore currently prevents FMCSA from using SMS percentiles or alerts for SFDs, as was recommended by the NTSB.

### **Current Status of SMS**

This ANPRM does not make any specific proposals but asks for input on the potential use of the SMS methodology to issue SFDs in a manner similar to the 2016 FMCSA proposed rule.<sup>34</sup> To inform that input, FMCSA provides an update on its work related to SMS here and in the Agency’s *Federal Register* notice titled, “New Carrier Safety Assessment System,” which was published at 88 FR 9954 (February 15, 2023). As recommended by NAS, FMCSA developed and tested an IRT model. To do so, FMCSA contracted with NAS for the establishment and operation of a standing committee of experts, as well as with subject matter experts from academia with experience in large-scale IRT modeling, to provide advice and guidance to the Agency during the development and testing of the IRT model. The IRT model was designed and tested using inspection data from FMCSA’s MCMIS database. The full modeling report titled, “Development and Evaluation of an Item Response Theory (IRT) Model for Motor Carrier Prioritization,” which details the statistical methodologies applied in developing

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<sup>34</sup> SMS methodology is a generalized motor carrier assessment tool and differs from the use of SMS percentiles and alerts. The use of SMS methodology for SFDs, as previously proposed in 2016, is not prohibited by statute.



and testing the IRT model, is available in the docket of the February 15, 2023, notice regarding SMS.

The Agency's IRT modeling work revealed many complications of using an IRT model. As a result, the Agency has concluded that IRT modeling does not perform well for FMCSA's use in identifying motor carriers for safety interventions and thus is not a useful tool for improving safety through FMCSA's safety fitness authority. First, the IRT model developed by FMCSA is heavily biased towards identifying smaller carriers that have few inspections with violations and limited on-road exposure to crash risk. When the safety event groups and data sufficiency standards used in SMS were applied to the IRT model, the IRT produced similar results to SMS.

Second, the IRT does not use vehicle miles traveled or power units to adjust for on-road exposure in the Unsafe Driving BASIC. As a result, the IRT identified carriers with much lower crash rates in that BASIC compared to SMS.

Third, IRT modeling is not understandable by most stakeholders or the public. IRT's inherent complexity makes it challenging for the industry and public to replicate and interpret results. While SMS results using FMCSA's existing processes can be reproduced and explained using mathematical calculations, IRT requires an advanced understanding of statistical modeling and analysis.

Fourth, a motor carrier could not independently compute its IRT results. IRT results can be computed only for the entire carrier population. A carrier would not be able to identify how specific violations or areas of regulatory noncompliance impacted its prioritization status or how it could improve its status.

Finally, IRT's runtime is incompatible with FMCSA's operational needs for monthly updates. The FMCSA IRT model takes 4 weeks to run as compared to 2 days for SMS. The long runtime would make it difficult to make even minor changes to the system.

Because IRT is overly complex and adopting the IRT model would reduce transparency and does not improve overall safety, FMCSA will not replace SMS with an IRT model. Instead, as noted in the notice, FMCSA is committed to continuously improving SMS to identify motor carriers that present the highest crash risk through a transparent and effective system. Those improvements include reorganizing the BASICs to better identify specific safety problems, combining the 958 violations used in SMS in 116 violation groups, simplifying violation and crash severity weights, removing percentile jumps that occur when carriers move into a new safety event group, and adjusting the intervention thresholds to improve SMS.

## **V. Discussion**

This ANPRM seeks input regarding new methodologies that would determine when a motor carrier is not fit to operate CMVs in or affecting interstate commerce. The intended effect of this action is to more effectively use FMCSA data and resources to identify unfit motor carriers and to remove them from the Nation's roadways. A successful SFD methodology may: target metrics that are most directly connected to safety outcomes; provide for accurate identification of unsafe motor carriers; and incentivize the adoption of safety-improving practices.

Though FMCSA is not making any proposals at this time, the Agency is seeking input on several of the topics discussed in the 2016 NPRM.

## **Questions**

FMCSA specifically requests responses to the following questions:

1. Should FMCSA retain the current three-tiered rating system of Satisfactory, Unsatisfactory, and Conditional? Why or why not?

A. In the 2016 NPRM, FMCSA proposed replacing the three-tiered structure with a single rating of Unfit. Under such a structure, carriers that completed safety fitness reviews successfully would continue operating and not appear different, in terms of their

SFD, from carriers that had not yet been reviewed. Would this approach be sufficient to ensure safety? Please explain your views.

B. What are the costs and/or benefits to a motor carrier associated with each current possible rating? Please provide data or information relating to the costs and/or benefits for motor carriers who are issued final ratings for each of the ratings listed below:

- Unsatisfactory rating (Unfit)
- Conditional rating
- Satisfactory rating

2. Should FMCSA include additional HM regulatory requirements in appendix B to part 385 (Explanation of Safety Rating Process) in the SFD calculation?

3. Currently, the table of regulatory factors in appendix B to part 385 (at II(C)(b)) excludes parts 172 and 173. However, there are violations in these parts included in the list of critical and acute violations in appendix B. Should they be included in the SFD calculations?

4. Should motor carriers of passengers be subject to higher standards than other motor carriers in terms of safety fitness rating methodology? If yes, what should these higher safety standards or thresholds be, and why are they appropriate? If no, why not?

5. Is there a specific aspect of safety management, such as driver training, driver fatigue management and mitigation, vehicular maintenance and repair, etc., that is so fundamentally different in passenger transportation, relative to CMVs transporting property, that FMCSA's safety fitness rating methodology should take this aspect into special consideration? If yes, what is this specific aspect of safety management, and how do you recommend FMCSA handle the matter within its safety fitness rating methodology? If no, why are the safety management aspects the same?

6. How will States be affected if the Agency changes the SFD? What resources might be needed to accommodate any changes, and how long would it take to incorporate any proposed changes?

7. The current SFD does not use all available safety data, such as all inspection-based data. Should the SMS methodology be used to issue SFDs, in a manner similar to what was proposed in the 2016 NPRM? If so, what adjustments, if any, should be made to that proposal? If not, should the Agency include more safety data in the SFD process in other ways and, if so, how? The Agency is interested in comments specifically on whether the integration of on-road safety data into the SFD process would improve the assessment of motor carriers' safety posture and the identification of unfit motor carriers.

8. Given the importance of driver behavior in preventing crashes, how would you recommend the Agency incorporate driver behavior data into the SFD? What data should the agency use? How should this methodology distinguish between data resulting in a conviction and data without a conviction?

9. What changes, additions, or deletions, from the current list of critical and acute violations should be included in the NPRM, and why? Should the list be retained? Why or why not?

10. Should SFD consider motor carriers' adoption and use of safety technologies in a carrier's rating? How should this fit into the SFD methodology?

11. Should the Agency revise the current administrative review procedures in §§ 385.15 and 385.17(j) related to administrative review and corrective action? Which of those procedures should be changed or discarded? Please give the reasons for your views.

12. Given that unsafe driving behaviors, such as speeding and texting while driving, are highly correlated with crash risk, should the safety fitness rating methodology give more weight to unsafe driving violations of § 392.2? For example, each pattern of noncompliance with a critical regulation relative to part 395, Hours of

Service of Drivers, is assessed double the points in the safety fitness rating methodology.

Should violations of § 392.2, or a subset of those violations, be treated in a similar manner?

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